

no chance of success. Once a general feeling of security prevailed, both among strong and weak tribes, there can be no doubt that another incentive would be given to the keeping of large herds.

I have only indicated what I believe to be the resources of Sinai. It seems to me that Egypt could gain many advantages from a country so close to hand, whence a constant supply of the best camels could be drawn, with very little outlay. The minor questions of goats, ostriches, and olive growing could remain in abeyance at present.

Once a shrub such as the salt-bush has been introduced, and means found to store enough water to give the people confidence in the welfare of their beasts, the flocks would increase without further encouragement on the part of the Government, although its assistance in improving the breed of camels would be invaluable.

(To be continued.)

THE DESERT OF THE WANDERINGS.

By SIR CHARLES M. WATSON, K.C.M.G., C.B.

THE news that the survey of the district lying to the south of Palestine is about to be taken in hand, will be received with much satisfaction by subscribers to the Palestine Exploration Fund, as it is a country full of interest to students of the Bible, and, at present we know little about it, notwithstanding its proximity to Palestine and Egypt..

It will be remembered that the survey of Western Palestine, carried out by the Society in the years 1872-77, included the country between the Mediterranean and river Jordan, from Tyre and Baniyas on the north, to a line running from near Gaza, through Beersheba, to the Dead Sea on the south, thus comprising the area usually known as the Holy Land. But, at that time, it was not possible to extend the survey south of Beersheba, into the country lying between Palestine and the line of the Egyptian frontier, which runs from Rafah on the Mediterranean to the head of the Gulf of Akabah; and it was necessary to postpone to a future period the investigation of this district, which is often referred to in the earlier books of the Bible, in connection with the history of Abraham and

Isaac, and the account of the wanderings of the Israelites during the forty years' delay, before they were allowed to enter into the Promised Land.

Although, however, no proper survey has yet been made, and many square miles are quite unexplored, a certain amount of information with regard to the district has been collected since the completion of the survey of Western Palestine, and a good deal has been written on the subject. It would seem, therefore, desirable to refer readers of the *Quarterly Statement* to some of these publications, in order that they may be in a position to understand the results which it is hoped may be arrived at, and the questions which may be solved, by the survey now about to be commenced.

Of the many books which deal with the matter, there are two which are specially worthy of notice. These are:—

The Desert of the Exodus, by Prof. E. H. Palmer, published by Messrs. Deighton, Bell and Co. in 1871.

Kadesh Barnea, Its importance and probable Site, by Dr. H. Clay Trumbull, published by Messrs. Hodder and Stoughton in 1884.

There was no man who knew more of the Peninsula of Sinai and of the deserts lying to the north, between Egypt and Palestine, than the late Professor Palmer. He took part in the survey of Sinai carried out under the Ordnance Survey in 1868, by the late General Sir C. W. Wilson; and, in 1869–70, he made a reconnaissance of the country between Sinai and Palestine, on behalf of the Palestine Exploration Fund, during which tour he made some interesting discoveries in that little explored district. His last notable journey from Gaza across the desert to Suez, and his murder by the Bedawin in Wady Sudur during the Egyptian Campaign of 1882, are matters of history. His book *The Desert of the Exodus*, with the maps it contains, are worthy of careful study, and the last chapter on "The Topography of the Exodus" is of special interest.

Doctor Trumbull's work, *Kadesh Barnea*, is also a work of great value for students, and the author was one of the very few travellers who have been able to visit the Oasis of 'Ain Kades, the probable site of Kadesh Barnea of the Bible, where the Israelites were encamped when, in consequence of their unbelief, they were forbidden to enter Palestine from the south. The book contains an excellent *résumé* of the views of travellers and writers upon the subject, and a full list of authorities, which will be found very useful for reference.

There have been a considerable number of papers in the *Quarterly Statement* dealing with the question of the Route of the Israelites from Egypt to Canaan, and the probable identification of sites connected therewith, of which the more important are the following:—

1871. Page 3. The Desert of the Tih, by Prof. E. H. Palmer.
 1879. „ 59. A Journey on Foot through Arabia Petraea, by
 Rev. F. W. Holland.
 1880. „ 231. The Topography of the Exodus, by Capt. C. R.
 Conder.
 1881. „ 60. Kadesh Barnea, by Capt. C. R. Conder.
 1883. „ 225. The Route of the Exodus, by C. Pickering Clarke.
 1884. „ 4. Notes to accompany a Map of the late Rev.
 F. W. Holland's Journey from Nakl to 'Ain
 Kades, Gebel Magrah, and Ismailia, by
 Col. Sir C. W. Wilson.
 1884. „ 230. The Route of the Exodus, by J. Baker Greene.
 1885. „ 231. A Naturalist's Journey to Sinai, Petra, and
 South Palestine, by E. Chichester Hart.
 1896. „ 175. The Route of the Exodus, by Capt. A. E. Haynes.
 1908. „ 125. From Hazaroth to Mount Hor, by the Rev. Caleb
 Hauser.

Turning to the Bible we find many references to the district—the south country, as it is frequently called—which is now about to be surveyed. We read in Genesis that the patriarch Abraham, who had been living at Hebron, moved into the south country after the destruction of Sodom and Gomorrah, and dwelt at Gerar, a place between Kadesh and Shur. The meaning of Shur is a matter of controversy, but it has been assumed by some that it was the fortified border line between Egypt and Palestine, and it is not impossible that this border was somewhere near the present boundary of delimitation between the two countries. From Gerar Abraham returned to Beersheba, and then to Hebron, there he died. His son Isaac is also reported to have lived at Gerar in the south country, and to have reopened the wells which his father had made. It was through the south country, again, that Jacob travelled, when he went from Beersheba into Egypt to see his son Joseph, and he appears to have journeyed by the road of Shur, which was evidently a good road, suitable for wagon transport, and it is to be hoped that the new survey will enable its lines to be traced. It was one of the

three roads which led eastward from Egypt, the other two being the road of the Philistines, which followed the coast line of the Mediterranean from the city of Pelusium at the mouth of the Nile to Gaza ; and the road of the Red Sea, which crossed north of the Peninsula of Sinai, from Suez to the Gulf of Akabah ; the two latter roads are still in use.

The journey of the Israelites, under the leadership of Moses, from Egypt to Canaan may be considered under the following heads :—

1. The crossing of the Red Sea.
2. The journey to Mount Sinai.
3. The halt at Sinai, during which the law was given, and the tabernacle was constructed.
4. The march from Sinai to Kadesh Barnea.
5. The halt of about thirty-eight years in the country round Kadesh Barnea.
6. The march from Kadesh Barnea to Mount Hor, where Aaron died.
7. The march round the east side of Moab into the country of the Amorites, finally ending on the Jordan near Jericho.
8. The passage of the Jordan after the death of Moses.

Of these divisions Nos. 4, 5 and 6 are connected with the district which is now to be surveyed, and possibly some of the difficult points with regard to them will be cleared up.

The descriptions of the march from Sinai to Kadesh Barnea, as given in the books of Numbers and Deuteronomy, are not very easy to follow, but it is clear that, on leaving Sinai, Moses led the people in a north-westerly direction, with the intention of reaching the high road, the way of Shur, which has been already mentioned, and entering the land of Canaan from the south. But the plan was changed, when, after the return of the spies to the camp at Kadesh, the Israelites refused to follow Moses, and, in consequence of their unbelief, the advance to Canaan was delayed for thirty-eight years.

There is but little information in the Bible as to what the Israelites were doing during this period of waiting, but it would appear that they were at Kadesh Barnea at the commencement, and also at the conclusion of it, when Miriam, the sister of Moses, died, and the camp moved on to Mount Hor. The names of the places at which they encamped, as given in Numbers xxxiii, do not help

much, especially as Kadesh is only mentioned once, and it would seem that they remained in the vicinity of that place until the departure for Mount Hor. Perhaps the new survey may throw some light on the question, and lead to the identification of places mentioned in the Pentateuch, the sites of which are, at present, unknown.

Another point that requires investigation is the line of the southern border of the Promised Land, which is first described in Numbers xxxiv, 3-5, where it is stated :—"Your south border shall be the outmost coast of the Salt Sea eastward. And your border shall turn from the south to the ascent of Akrabbim, and pass on to Zin ; and the going forth thereof shall be from the south to Kadesh Barnea, and shall go on to Hazar-addar, and pass on to Azmon. And the border shall fetch a compass from Azmon unto the river of Egypt, and the goings out of it shall be at the sea." Another description of the boundary, in nearly the same words, is given in Joshua xv, 2-4.

Of the places mentioned, there can be no doubt that the outmost coast of the Salt Sea means the south end of the Dead Sea ; Kadesh Barnea is probably 'Ain Kades, already mentioned ; and then it is certain that the river of Egypt is the great valley, now called Wady el-Arish, which reaches the coast of the Mediterranean, forty-eight miles south-west of Gaza. The other places have not yet been identified. It is evident therefrom that the south border included the district known as the south country in the time of the Patriarchs, and which was at first included in the inheritance of the tribe of Judah, but was afterwards allotted to the tribe of Simeon, see Joshua xix. There are given in Joshua xv, 26-32, and Joshua xix, 2-8, the names of a number of towns situated in the south country, showing that it must then have been fairly populated. Now the towns have disappeared, their sites are unknown, and the only inhabitants are wandering Bedawin tribes, who move about with their flocks from well to well, just as Abraham did in days of old. The question naturally arises as to what is the reason of the change ; is it that the rainfall has diminished, as some people think ; or is it that the water supply has been neglected, and could, with care, be put right, so as to make the south country fertile again ? Prof. Palmer was of opinion that the latter was the case, and he reported the existence of ruins of well-constructed dams, and of terraces, which had evidently been laid out for cultivation.

Another proof that the south country was comparatively fertile in more recent times is, that on the Medeba Mosaic Map of Palestine, which was probably constructed towards the end of the sixth century A.D., there are shown a number of towns in the district, south of Beersheba—towns that have now ceased to exist.

Enough has been said to show the great interest of the proposed survey. The primary duty of the explorers will be to make an accurate map of the district, with its many hills and valleys, and then to record upon the map the position of all ruins of ancient towns, and of other archaeological remains, giving to each the name by which the site is known at present, in the same manner as was done in the case of the previous surveys carried out by the Palestine Exploration Fund. The work will be exploration, not excavation, and we may hope that it will lead to the identification of some, at all events, of the places mentioned in the Bible, and increase our understanding of the history of the Patriarchs and the Israelites.

THE DEAD SEA.

By SIR JOHN GRAY HILL.

IN the October number of the *Q.S.* Dr. Masterman gives a very interesting summary of the variations in the level of this strange lake from 1900 to 1913. As I think I was the first to call attention to the rise of its waters, in my article in the July number 1900, after which the measurements began, and as I watch the north part of the lake from my house on Mount Scopus every spring, and take a great interest in the subject, I should like to add something to what Dr. Masterman says.

It seems to me clear that not only has the Dead Sea risen considerably, on the whole, during the last hundred years, but that that period witnessed great variations in its level.

Irby and Mangles (ed. 1823, p. 459) state that in June, 1818, from the different bearings which they took and mention, they ascertained that the length, including the backwater (apparently at the south end), did not exceed thirty miles, which, if English, is about the length from the north end to the Lisan. The Duc de Luynes (see below) says: "Il n'y aurait rien d'improbable à ce